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Solar Panel Guide Specification Data Sheet

Mission Solar Energy MSE PERC 60 White Back MSE300SQ5K

Also available on the web at
EnergyPal.com/mission-solar-energy-solar-panels/mse300sq5k

MSE PERC 60

High Power PERC Rooftop Module



Class Leading Output:
305W power



Advanced Technology:
PERC and 4 busbars drive
>18% module efficiency



Certified Reliability:
3X IEC, salt mist, ammonia



5600 Pa snow load **New!**
175 mph wind rating



Buy American Act



Proudly assembled in the USA

Mission Solar Energy is headquartered in San Antonio, TX with module facilities onsite. Our hardworking team calls Texas home and is devoted to producing high quality solar products and services. Our supply chain includes local and domestic vendors increasing our impact to the U.S. economy.



Assembled
in the USA

CERTIFICATIONS

IEC 61215/ IEC 61730/ IEC 61701 UL 1703



*As there are different certification requirements in different markets, please contact your local Mission Solar Energy sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

Outstanding performance with PERC

Passivated Emitter Rear Contact (PERC) technology provides excellent power output through advanced cell structure.

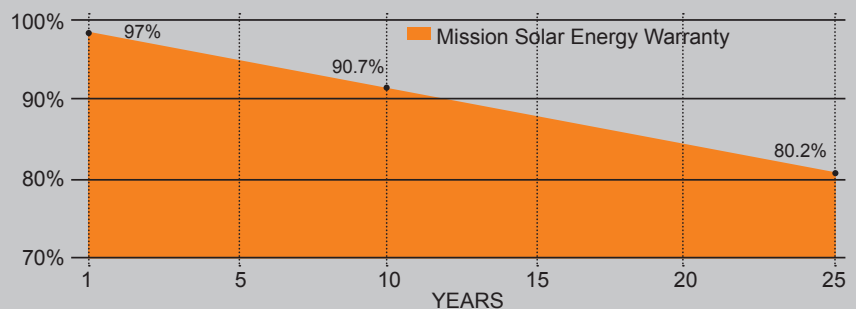
Best in class quality

Mission Solar Energy production lines are fully automated and include multiple quality checks throughout the production process.

Proven reliability and bankability

Mission Solar Energy panels have been tested by independent testing centers to meet and exceed IEC standards. Our panels are deployed in projects across North America.

25-YEAR LINEAR WARRANTY



ELECTRICAL SPECIFICATIONS

Electrical parameters at Standard Test Condition (STC)

Module Type			MSE295SQ5K	MSE300SQ5K	MSE305SQ5K
Power Output	P _{max}	Wp	295	300	305
Module Efficiency		%	17.82	18.06	18.36
Tolerance			0~+3%		
Short-Circuit Current	I _{sc}	A	9.73	9.77	9.81
Open Circuit Voltage	V _{oc}	V	39.38	39.72	39.95
Rated Current	I _{mp}	A	9.20	9.27	9.36
Rated Voltage	V _{mp}	V	32.19	32.38	32.61

STC: Irradiance 1000 W/m², Cell temperature of 25°C, AM 1.5

TEMPERATURE COEFFICIENTS

Normal Operating Cell Temperature (NOCT)	44°C (±2°C)
Temperature Coefficient of P _{max}	-0.427%/°C
Temperature Coefficient of V _{oc}	-0.318%/°C
Temperature Coefficient of I _{sc}	0.042%/°C

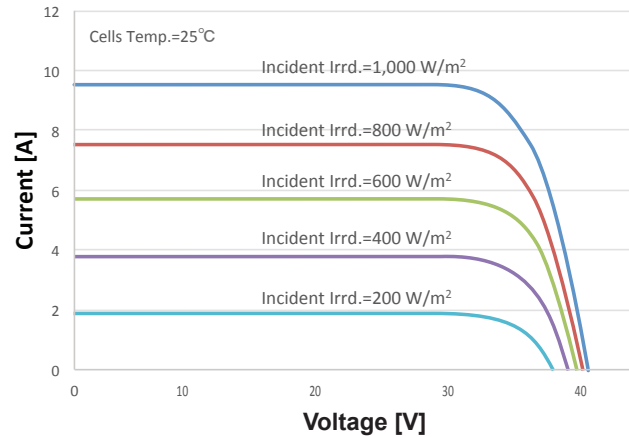
OPERATING CONDITIONS

Maximum System Voltage	1,000VDC
Operating Temperature Range	-40°C (-40°F) to +90°C (194°F)
Maximum Series Fuse Rating	15A
Fire Safety Classification	Type 1, Class C
Front & Back Load (UL standard)	5600 Pa (117 psf) New!
Hail Safety Impact Velocity	25mm at 23 m/s

MECHANICAL DATA

Solar Cells	P-type Mono-crystalline Silicon (156.75mm)
Cell orientation	60 cells (6x10), 4 busbar
Module dimension	1664mm x 999mm x 40mm (65.51 in. x 39.33 in. x 1.57 in.)
Weight	18.2 kg (40.1 lb)
Front Glass	3.2mm (0.126 in.) tempered, Low-iron, Anti-reflective coating
Frame	Anodized aluminum alloy
Encapsulant	Ethylene vinyl acetate (EVA)
J-Box	Protection class IP67 with 3 bypass-diodes
Cables	PV wire, 1m (39.37 in.), 4mm ² / 12 AWG
Connector	MC4 or compatible

MSE300SQ5K: 300WP, 60CELL SOLAR MODULE CURRENT-VOLTAGE CURVE



Current-voltage characteristics with dependence on irradiance and module temperature

BASIC DESIGN (UNITS: mm)

